CLAIMS

WHAT IS CLAIMED IS:

1. A method for determining a characteristic curve of a high frequency unit, which outputs a high frequency signal modulated with a modulation signal, said method comprising the following steps:

receiving the high frequency signal output by the high frequency unit and generating samples of a complex value, real baseband signal;

generating a modulation symbol sequence by demodulation of the scanned baseband signal;

simulating an ideal baseband signal from the modulation symbol sequence as reference signal;

generating a corrected, real baseband signal by correcting the real baseband signal; and

evaluating the deviations of samples of the corrected, real baseband signal from samples of the ideal baseband signal.

2. The method according to claim 1, wherein the ideal baseband signal is simulated by means of a filter from the modulation symbol sequence determined by the demodulation of the real baseband signal.

3. The method according to claim 1, wherein a set of parameters is determined in order to correct the real baseband signal, for which set of parameters the deviation of the samples of the corrected, real baseband signal from the samples of the ideal baseband signal is minimal.

4. The method according to claim 3, wherein an average quadratic error is minimized in order to determine the minimal deviation of the samples of the corrected, real baseband signal from the samples of the ideal baseband signal.

5. The method according to claim 3, wherein only specific, selected samples of the real baseband signal and of the ideal baseband signal are used in order to determine the set of parameters.

6. The method according to claim 5, wherein those samples of the real baseband signal and of the ideal baseband signal, which lie on symbol decision points in time, are used as specific, selected samples.

7. The method according to claim 3, wherein the ideal baseband signal is weighted by means of an evaluation function in order to determine the set of parameters.

8. The method according to claim 1, wherein a plurality of groups is formed, a plurality of samples being combined in each group.

9. The method according to claim 8, wherein the samples of a plurality of intervals are combined in order to form the groups, the intervals dividing an amplitude range or level range to be evaluated as portions of the same width and each sample being assigned to a specific interval.

10. The method according to claim 9, wherein in each group, the samples of so many intervals are combined that each group contains approximately the same number of samples.

11. The method according to claim 9, wherein for each interval, the ideal levels or ideal amplitudes determined from the ideal baseband signal are added to form a first interval sum and, for each group, the first interval sums of those intervals, which are combined to form one group, are added up.

12. The method according to claim 9, wherein for each interval, the levels of the samples of the corrected, real baseband signal of the samples combined within the interval are added to form a second interval sum and/or, for each interval, the phase errors of the samples of the corrected, real baseband signal of the samples combined within the interval are added in a third interval sum, said phase errors being determined by comparison with the samples of the ideal baseband signal and, for each group, the second and/or third interval sums of those intervals, which are combined to form a group, are added up respectively.

13. The method according to claim 9, wherein the determination of the interval limits is effected independently of the real baseband signal.

14. The method according to claim 9, wherein a representation value pair is determined for each group.

15. The method according to claim 14, wherein a course of a characteristic curve is approximated with the representation value pairs as support points.

16. The method according to claim 15, wherein the course of the characteristic curve is approximated to the support points by means of a polygonal curve course.

17. The method according to claim 15, wherein the course of the characteristic curve is approximated to the support points by means of a polynomial.

18. The method according to claim 15, wherein the course of the characteristic curve is approximated to the support points by means of a spline interpolation.

19. The method according to claim 14, wherein each representation value pair, comprising a first average value of the ideal levels or of the ideal amplitude and a second average value for the level of the samplesof the corrected, real baseband signal or a second average value for the deviation of the phase of the samples of the corrected real baseband signal, is formed from the samples of the ideal baseband signal of the respective group.

20. The method according to claim 14, wherein a measurement is implemented respectively for various level settings of the high frequency unit and the representation value pairs of the various measurements are used in order to form a characteristic curve.

21. The method according to claim 1, wherein a plurality of characteristic curves is determined from respectively one measurement and an average characteristic curve is formed from the plurality of characteristic curves by averaging.

22. A measuring device for determining a characteristic curve of a high frequency unit which outputs a high frequency signal modulated with a modulation signal, said measuring device comprising:

a receiving unit for receiving the high frequency signal output by the high frequency unit and for generating samples of a complex value, real baseband signal,

a demodulation device for generating a modulation symbol sequence of the scanned real baseband signal,

a digital filter for simulating an ideal baseband signal from the modulation symbol sequence,

a correction device for correcting the samples of the real baseband signal dependent upon the samples of the ideal baseband signal and for outputting a corrected, real baseband signal, and

an evaluation device for evaluating the deviations of the samples of the corrected, real baseband signal from the samples of the ideal baseband signal.

23. The measuring device according to claim 22, wherein the correction device comprises a minimization element for determining a set of parameters, for which the deviations of samples, with the set of parameters, of the corrected, real baseband signal from the samples of the ideal baseband signal are minimal, and a correction element for outputting a correct, real baseband signal with the determined set of parameters.

24. The measuring device according to claim 22, wherein an evaluation device for weighting the ideal baseband signal by means of an evaluation function for the correction of the samples is provided.